

**SONY®**

3-752-973-21 (2)

Photo Video Camera

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# PHV-A7

## Operating Instructions

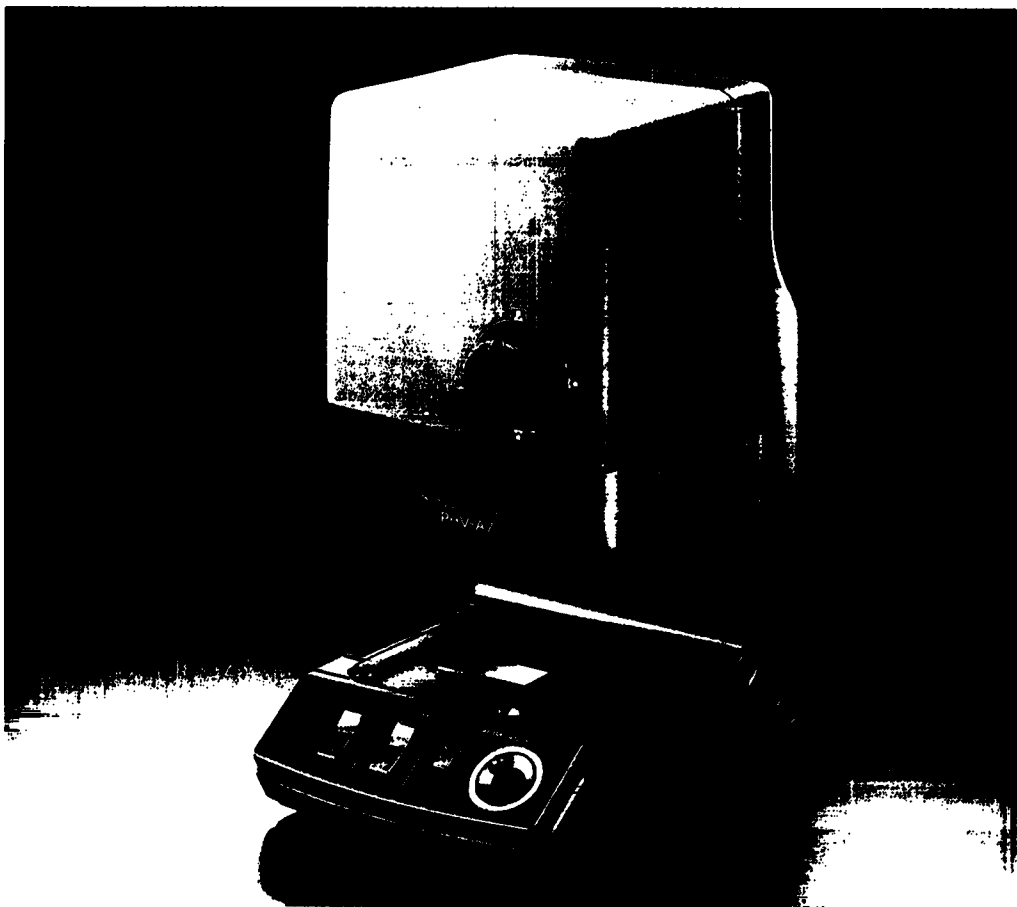
Before operating the unit, please read this manual thoroughly and retain it for future reference.

## Owner's Record

The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

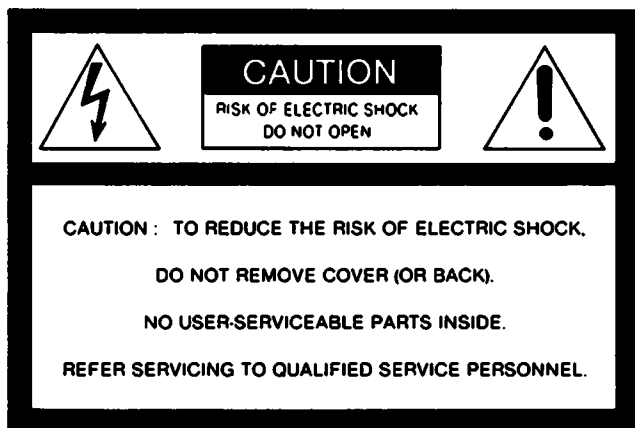
Model No. PHV-A7

Serial No. \_\_\_\_\_



# WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## For the Customers in Canada

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.

## For the Customers in the U.S.A.

### INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock NO. 004-000-00345-4.

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# Overview

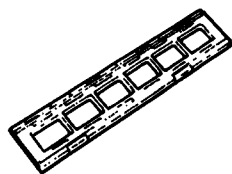
The photo video camera PHV-A7 is a film-to-video converter which enables you to view your photo films on your TV. Having the negative/positive selector, you can easily display both negative and positive films. It also accepts both strip and mounted film. Furthermore, you can use this unit in many other ways such as magnifying a small object on the TV screen.

## Main features of the PHV-A7

- 1/2 inch precision CCD image sensor (410,000 picture elements) for sharp, clear image detail
- High resolution picture (400 TV lines and above)
- S video output for high quality picture
- Negative/positive selector for using both negative and positive films
- Instant automatic focus function for easy focusing
- Zooming function (x6) for making the picture appear closer or farther away
- White balance function for adjusting the white color of your picture
- Manual iris control for adjusting the brightness to your taste
- Color balance control for adding color effect
- Angle rotating control for changing the angle of the picture
- Microphone input for adding sound effects
- Trimming function for cutting unnecessary parts of the picture

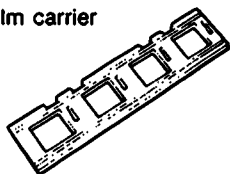
## Supplied accessories

Before you start operation, check to see that everything is contained in the package.



For strip 35mm film

Film carrier



For mounted 35mm film



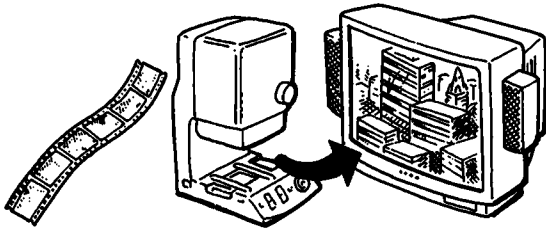
AV connecting cable



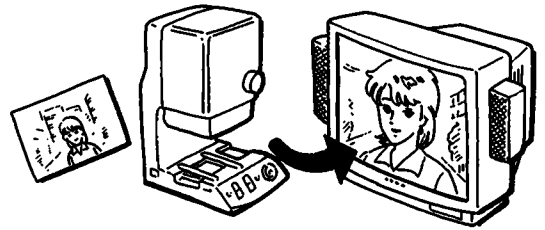
Dust cover

## With This Unit, You Can

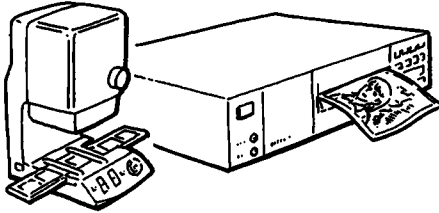
Display negative film on the TV screen



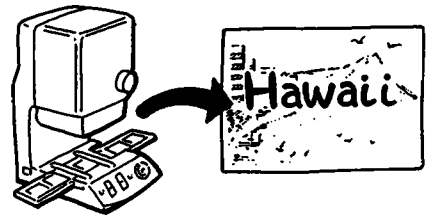
Magnify a small object or photograph on the TV screen



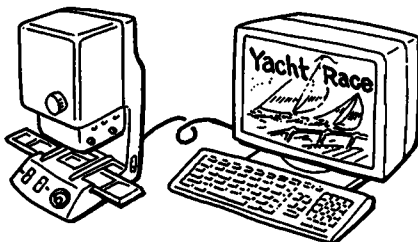
Connect to VCR for editing or video printer for printing



Use as an instant titler for editing



Connect to personal computer for scanning the picture



Add sound effects using a microphone



# Precautions

## On safety

- Operate the unit only on 120V AC, 60Hz.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Unplug the unit from the wall outlet if it will not be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

## On installation

Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

## On connection

- Before connecting, be sure to turn off all equipment.
- Insert plugs securely, as loose connections may cause hum and noise.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- To avoid interference, turn off equipment not in use.
- If noise occurs in the picture or sound, move the pieces of equipment farther away from each other.
- For details on connections, refer to the instruction manual covering the corresponding equipment.

## On operation

When the unit will not be used, turn the power off to conserve energy and to extend the useful life of your unit.

## On cleaning the cabinet

Clean the cabinet and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

To clean the plate which covers the light source part, remove the film carrier.

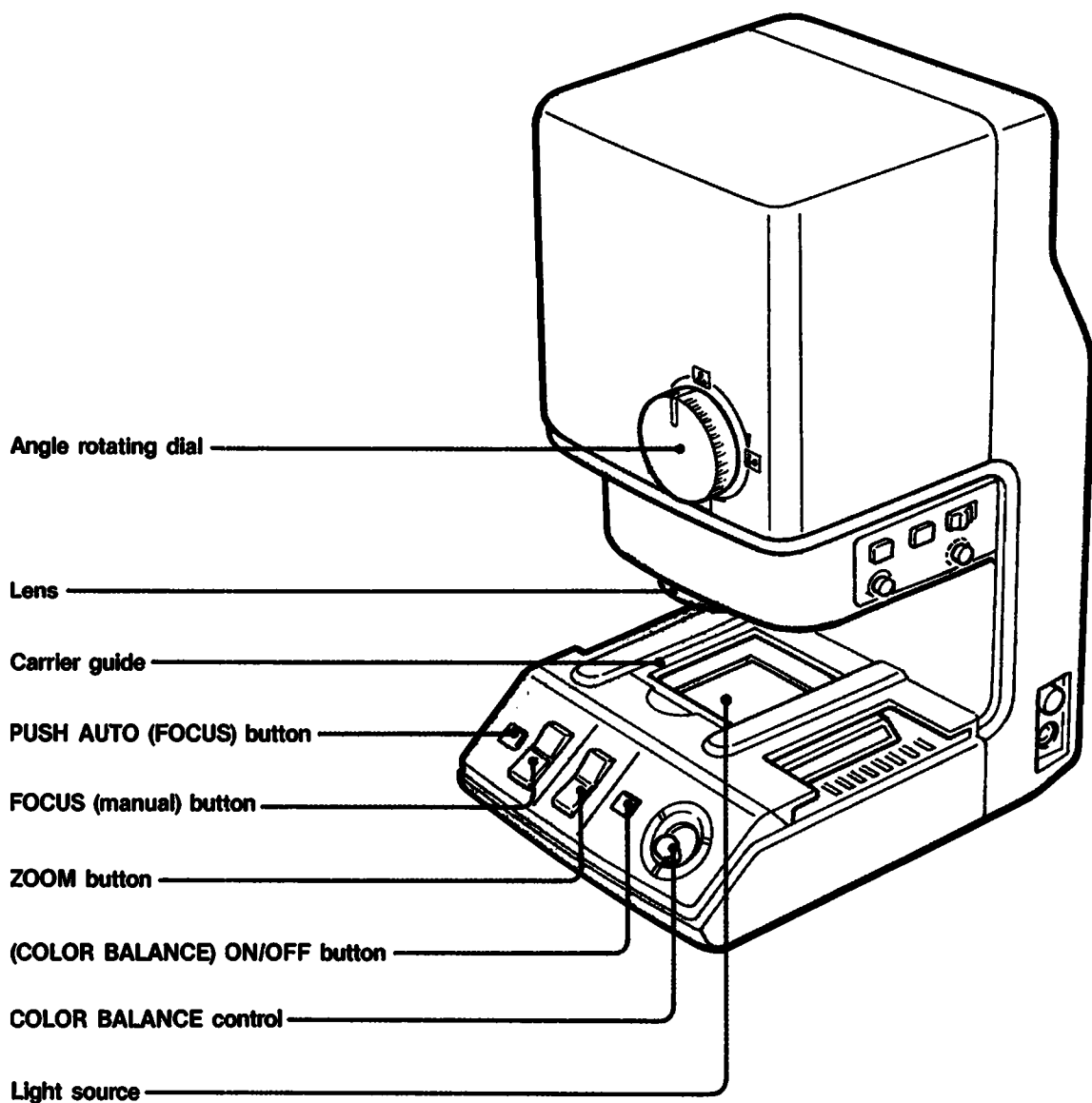
Clean the lens and film with a blower. If dust is on the lens, it will be displayed on the screen.

## On repacking

Do not throw away the carton and the packing material. It makes an ideal container to transport the unit in.

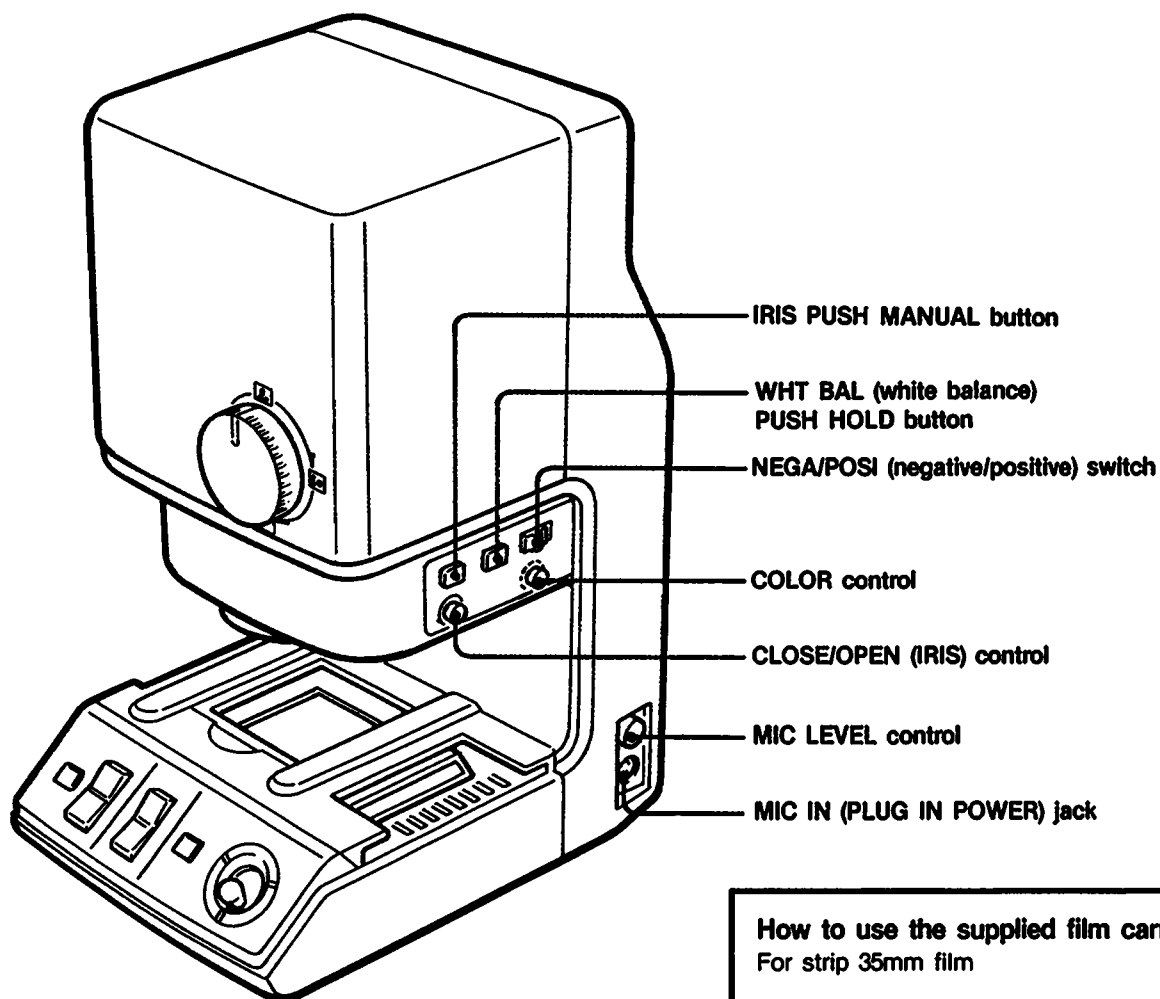
# Parts Identification

Front

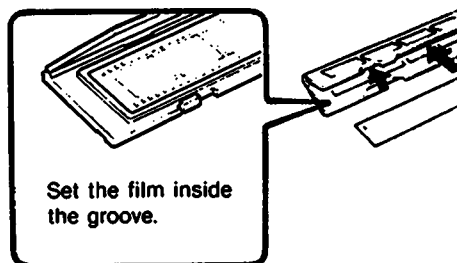


## Parts Identification

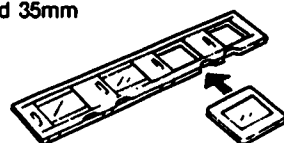
### Right Side



### How to use the supplied film carrier For strip 35mm film

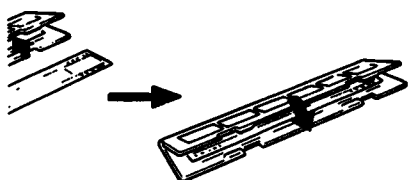
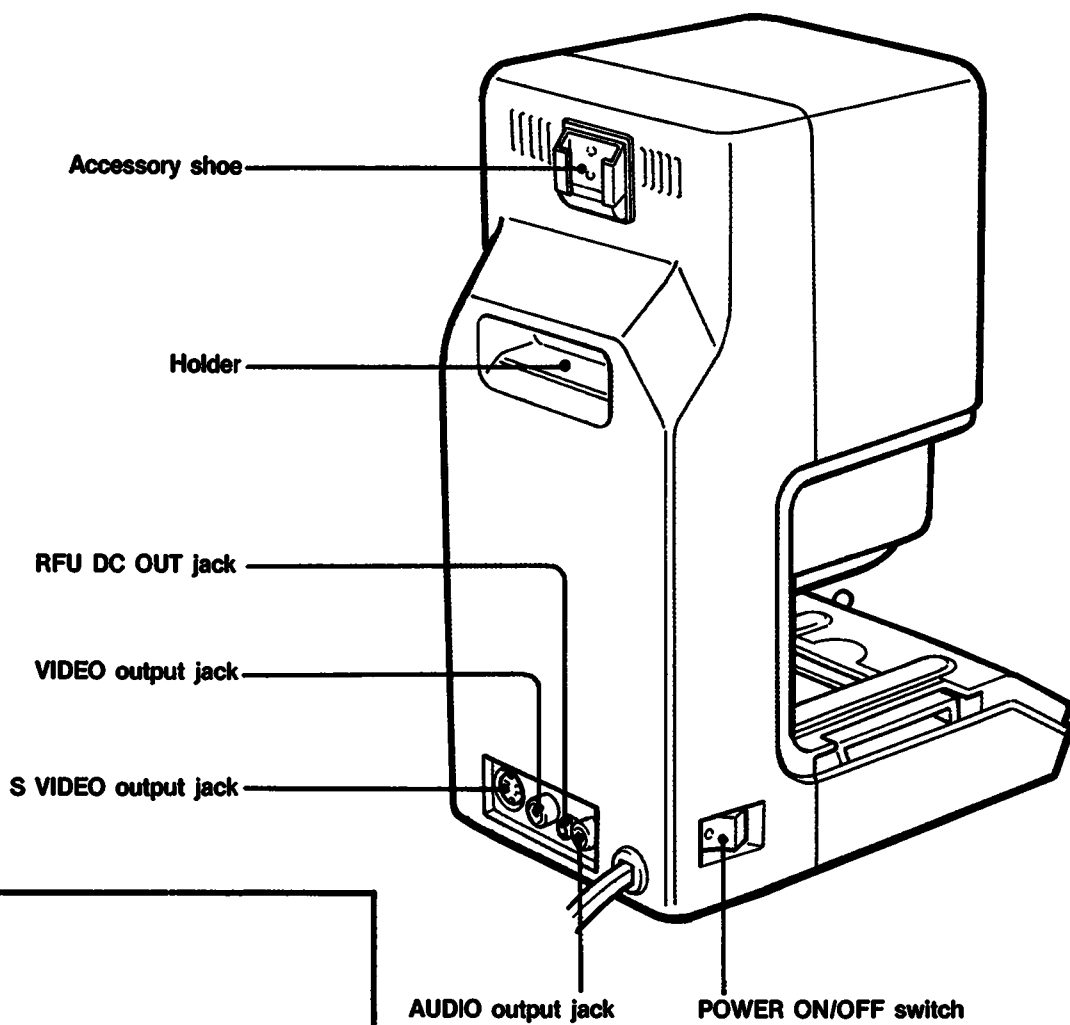


### For mounted 35mm film





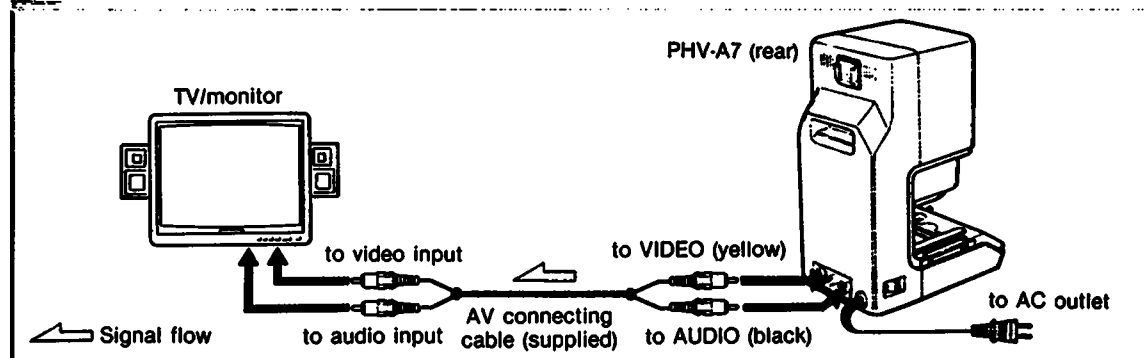
## Rear



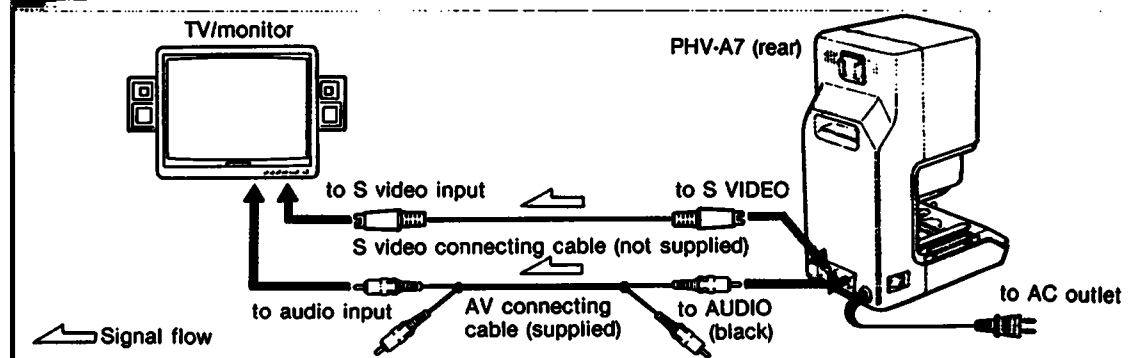
# To Connect Other Equipment

Before connection, be sure to turn off all equipment. Refer to the manual of the corresponding equipment for connection.

## To Connect to a TV/monitor with Audio/video Input

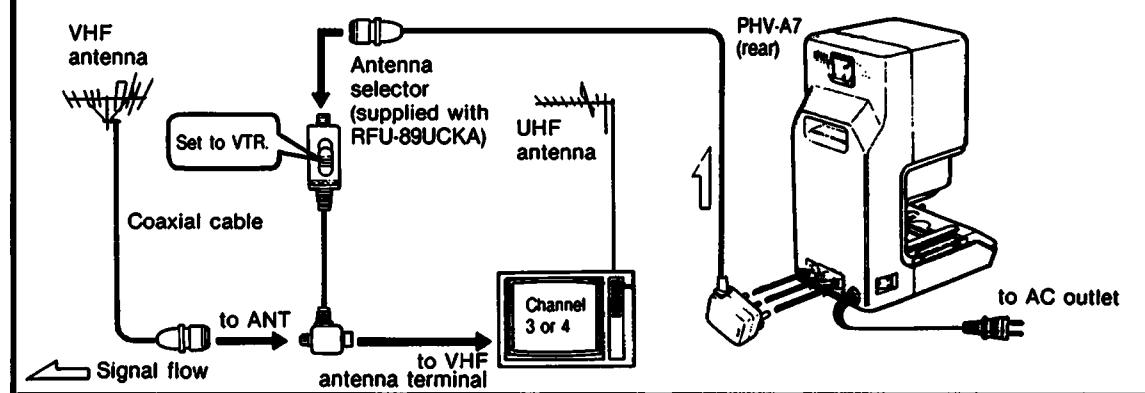


## To Connect to a TV/monitor with an S Video Input



## To Connect to a TV without an Audio/video Input

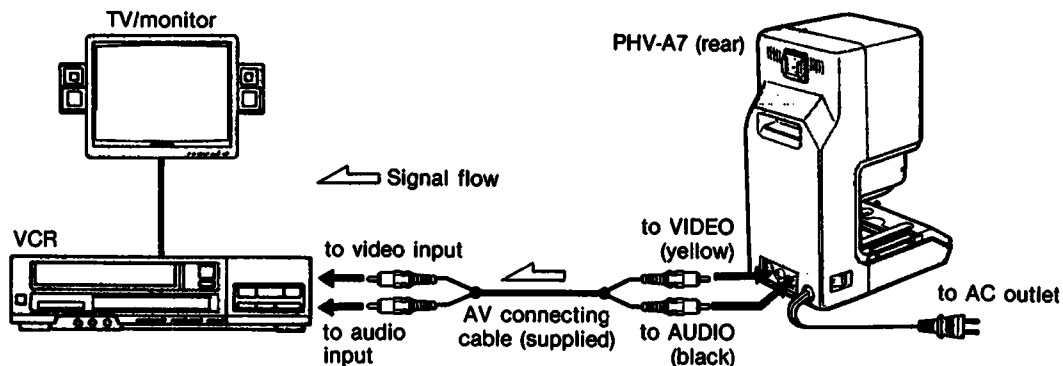
You need to use the RFU adaptor RFU-89UCKA (not supplied.)



### If the TV/monitor is stereo

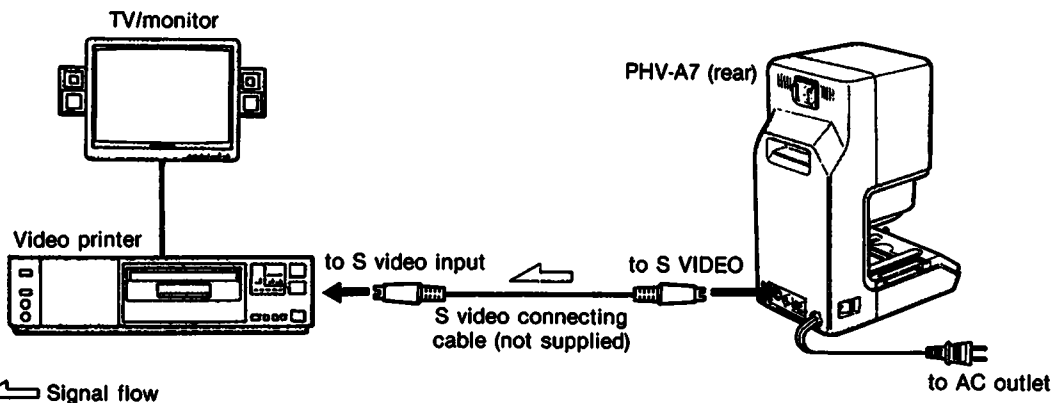
Connect the audio plug (black) of the supplied AV connecting cable to the audio left (white) jack of the TV/monitor. You can also use the AV connecting cable VMC-910/920MS (not supplied.)

## To Connect to a VCR

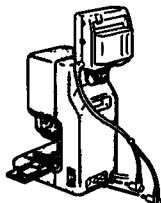


For a VCR with an S video input, use the S video connecting cable YC-15V (not supplied) for a better quality picture.

## To Connect to a Video Printer



## To Connect an LCD Color Monitor



Attach the LCD color monitor (not supplied) via the accessory shoe, then connect the monitor and PHV-A7 with the supplied AV connecting cable.

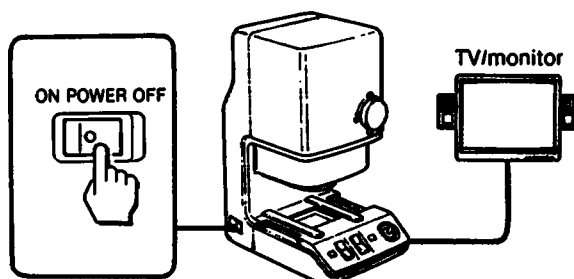
# Basic Operation

This section explains the procedure for displaying film on the TV screen. This unit accepts film under 35 mm.

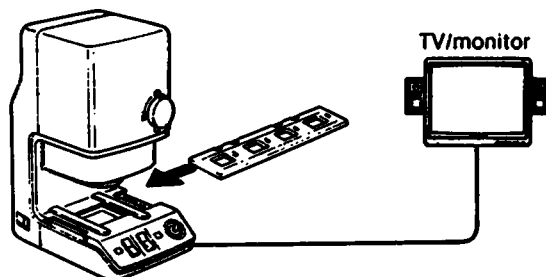
- 1** Turn on the power of this unit and the TV.  
The picture appears on the screen after about 4 seconds.

## Note

When you turn on the power, the light source may not light up if the fluorescent tube protection circuit functions. In such case, turn off the power, then turn on again after about 5 seconds.

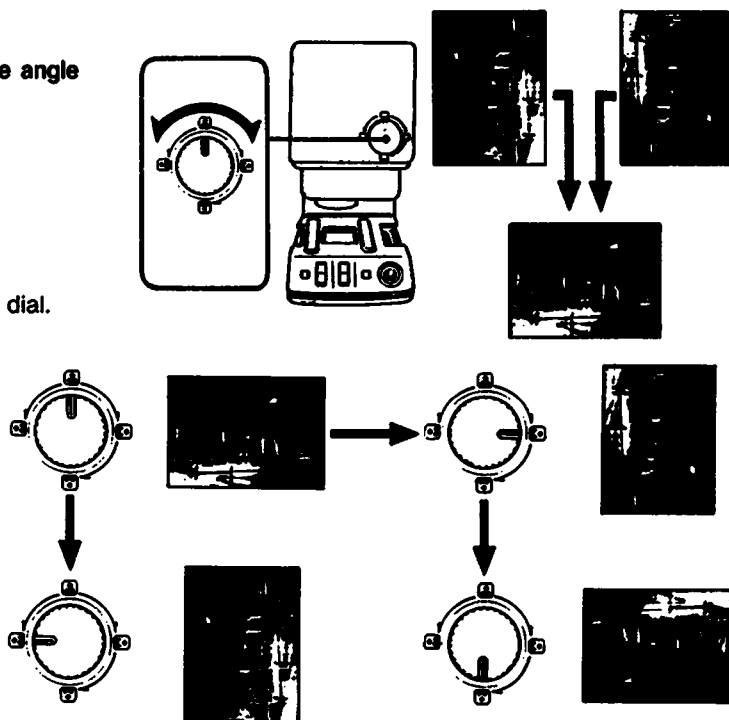


- 2** Attach the film carrier (for strip film or mounted film) to the carrier guide of this unit.

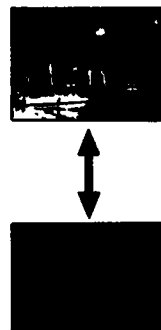
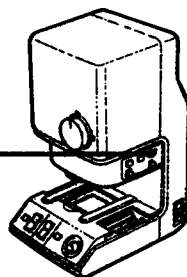
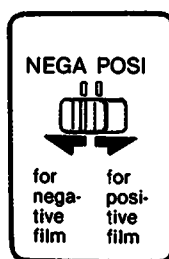


- 3** Adjust the angle of the picture. You can adjust the angle within 270°.

Rotate the angle rotating dial.



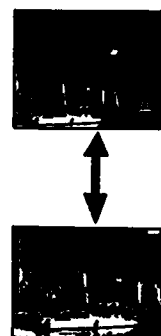
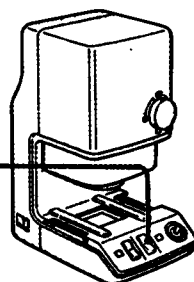
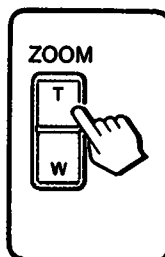
## 4 Set the NEGA/POSI (negative/positive) switch.



## 5 Press ZOOM button (T or W).

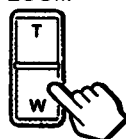
### Note

While pressing the ZOOM button (also a few seconds after), automatic focus functions.

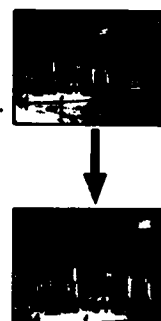


To make the subject appear farther away  
Press W (wide).

### ZOOM



The subject becomes farther as you press W.



To make the subject appear closer  
Press T (telephoto).

### ZOOM



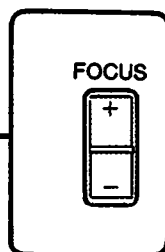
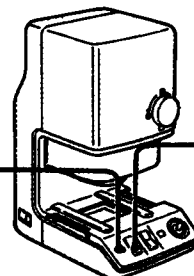
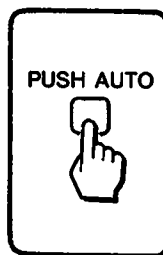
The subject becomes closer as you press T.

## 6 Adjust the focus.

Keep the PUSH AUTO button pressed until the picture is in focus.

### To focus manually

The automatic focus may not function depending on the kind of the film you are using. In such case, adjust the focus with the FOCUS +/- button.

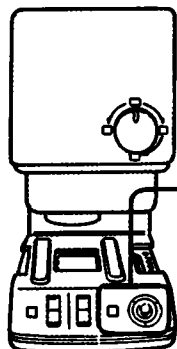


## Basic Operation

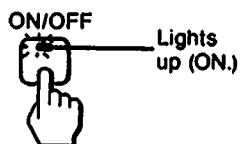
If the color or brightness is not normal  
Turn off the power, then after a few seconds,  
turn it on again.

To trim the unnecessary part of the picture  
Move the film carrier to adjust the position of  
the picture, then press the ZOOM button to  
adjust the size.

### How to Change the Color Balance

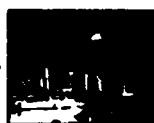


**1** Press the ON/OFF button.



**2** Adjust with the COLOR BALANCE control.

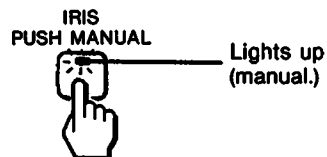
COLOR BALANCE



# Advanced Operation

## How to Adjust the Brightness

**1 Press the IRIS PUSH/MANUAL button.**



**2 Adjust with the CLOSE/OPEN control.**



CLOSE | OPEN



(For negative film. The effect is opposite for positive film)

You can adjust for inadequate brightness to a certain extent, even if it was due to under exposure when the picture was taken.

### Notes on the iris adjustment

This unit automatically adjusts the iris using the brightest part of the object that the lens is focused on. In the following cases, the automatic iris may not function. In such cases, adjust it manually.

- The film on the film carrier is not placed properly, and the light has hit the light source directly.
- The picture has changed due to zooming or trimming.
- The original film was extremely over or under exposed.
- The original film has too much contrast.

## How to Hold the White Balance Level

When you zoom the picture, the white balance level may change. To avoid such change, use this function.

**Press the WHT BAL PUSH HOLD button.**

WHT BAL  
PUSH HOLD

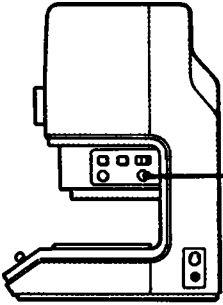


Lights  
up (hold  
mode.)

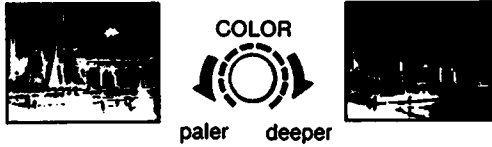


The white balance level does not change when you press the ZOOM button to change the size of the picture.

## How to Adjust the Color



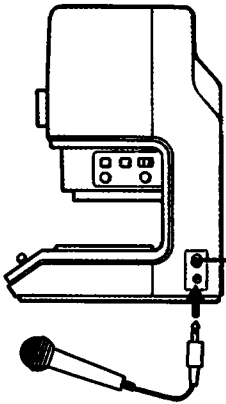
Adjust with the COLOR control.



To make the color deeper, turn to the right.

To make the color paler, turn to the left.

If you turn the control to the left end, the color turns to black and white.



## To Insert Sound Using a Microphone

**1** Connect the microphone to MIC IN (PLUG IN POWER) jack.

**2** Adjust the volume with the MIC LEVEL control.



When this unit is connected to a TV/monitor and audio system, and the microphone is near the speaker, howling (noise) may occur. In such case, lower the volume of the TV and audio system.

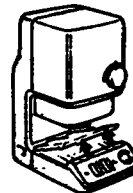
## To Display a Small Object or Photograph

To display small object or photograph, remove the carrier guide from this unit, then place the object or photograph directly. If placed on the carrier guide, the picture may not be in focus.

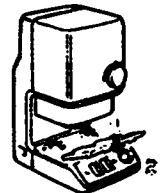
### Notes

- Without the carrier guide, light hits the light source directly and may interfere with automatic iris function. In such case, adjust iris manually.
- Do not scratch the surface of the plate which covers the light source.

How to remove the carrier guide



How to attach the carrier guide





# Specifications

<b>System</b>	Video signal	NTSC
	Image device	Precision CCD image sensor
<b>Input and output jacks</b>	S video output	4-pin mini DIN Luminance: 1Vp-p, 75 ohms unbalanced, sync negative Chrominance: 0.286Vp-p, 75 ohms unbalanced
	Video output	Phono jack, 1Vp-p, 75 ohms unbalanced, sync negative
	RFU DC OUT	Special mini jack, 5V DC
	Audio output	Phono jack, -7.5dBs, (at output impedance 47 kilohms), impedance less than 2.2 kilohms
	MIC IN	Minijack, -60dBs, low impedance with 2.5-3V DC output, impedance 6.8 kilohms
<b>General</b>	Power requirements	AC 120V 60Hz
	Power consumption	13 W
	Operating temperature	5°C to 40°C (41°F to 104°F)
	Storage temperature	-20°C to 60°C (-4°F to 140°F)
	Range of object field	48.5 × 36.6-8.6 × 6.5 mm (1 <sup>15</sup> / <sub>16</sub> × 1 <sup>1</sup> / <sub>2</sub> -1 <sup>1</sup> / <sub>32</sub> × 9 <sup>9</sup> / <sub>32</sub> inches)
	Dimensions	126 × 256 × 190 (W/H/D) mm (5 × 10 <sup>1</sup> / <sub>8</sub> × 7 <sup>1</sup> / <sub>2</sub> inches)
	Weight	2.3kg (5 lb 1 oz)
	Supplied accessories	Film carrier (for strip film 1, for mounted film 1) AV connecting cable (1) Dust cover (1)
	Optional accessories	Video printer CVP-G500 Microphone F-VX50 S video connecting cable YC-15V RFU adaptor RFU-89UCKA LCD color monitor XV-M30 Film carrier HVT-NA7/SA7

Design and specifications are subject to change without notice.

# Troubleshooting

If any difficulty should arise during operation, go through the following table. Should the difficulty persist, unplug the unit and contact your Sony dealer or local authorized facility.

Symptom	Possible cause and solution
The power does not go on.	<ul style="list-style-type: none"><li>• The AC power cord is not plugged in to the wall outlet.</li><li>• The power switch has not been turned on.</li></ul>
The light source does not light up.	<ul style="list-style-type: none"><li>• The fluorescent tube protection circuit is functioning.</li><li>• Turn off the power, then turn on again after about 5 seconds.</li></ul>
No picture appears on the screen.	<ul style="list-style-type: none"><li>• The connection is incorrect.</li><li>• The power of other equipment has not been turned on.</li><li>• The IRIS control is in manual mode, and excessively out of adjustment.</li></ul>
Negative and positive of the picture are reversed.	The setting of the NEGA/POS! switch is incorrect.
Left and right of the picture are reversed.	The film has been laid the opposite side down.
Top and bottom of the picture are reversed.	<ul style="list-style-type: none"><li>• The film has been laid up side down.</li><li>• The angle rotating dial is set to an incorrect position.</li></ul>
Color and the brightness is inadequate.	<ul style="list-style-type: none"><li>• The IRIS control is in manual mode, and the CLOSE/OPEN control is set to the incorrect position.</li><li>• The COLOR BALANCE control is set to the incorrect position.</li><li>• The color adjustment of the TV is incorrect.</li><li>• The COLOR control is set to the incorrect position.</li></ul>
The picture is not clear.	<ul style="list-style-type: none"><li>• Adjust with the (manual) FOCUS button.</li><li>• The film or lens is stained.</li><li>• The original film was not focused when it was taken.</li></ul>
The color or brightness changes when zooming or trimming.	<ul style="list-style-type: none"><li>• Adjust the iris manually, or hold the white balance level.</li><li>• The film on the film carrier is not placed properly, and the light has hit the light source directly.</li><li>• The original film was extremely over or under exposed.</li><li>• The original film has too much contrast.</li></ul>